



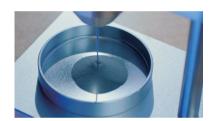
# **HBD 150**

## Metal Additive Manufacturing System

Optimal Selection for Customized Precision Additive Manufacturing in Small Batches

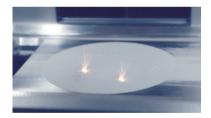


## WHY HBD 150?



#### **Multiple Material Compatibility**

Supports printing with various metal materials, providing a wider range of material options to meet different application requirements.



### **Advanced Printing System**

Equipped with advanced printing capabilities, a single laser optical path enables full coverage of the printing surface. Its stable printing system ensures long-term operation, providing consistent and reliable production performance.



#### **Efficient Purification Assurance**

Equipped with an independent purification system, with a dust removal rate of 299.9%, ensuring efficient and safe purification of metal power during the printing process, guaranteeing optimal building conditions and excellent printing quality.



#### **Tailored Customization**

HBD 150 is designed to provide customized metal additive manufacturing solutions for various industry needs, focusing on effectively meeting clients' personalized requirements.

## 3D Print Cases



#### **Titanium Mesh**

Industry: OrtHopedics

Material: TC4
Size: 12\*16\*22mm

Weight: 3g
Quantity: 82
Time: 2.5h

Medical titanium mesh utilizing metal 3D printing technology enables rapid prototyping, reducing production time and costs while maintaining high precision and quality control. Furthermore, metal 3D printing facilitates incorporating porous structures into the mesh, promoting osseointegration and improving tissue ingrowth and biocompatibility of medical implants. Through the optimization of the printing layout for titanium mesh, the HBD 150 significantly decreases the need for support structures and efficiently minimizes post-processing tasks, ultimately enhancing the quality of the final titanium mesh product.



Mandible (skeleton structure)



Acetabular Cup



Car Exhaust Pipe



Conformal Cooling Mold Insert

## **▶ Technical Parameters**

Build Volume	φ158mm × 100mm(height incl. build plate)
Laser Power	1 Laser, 300W/500W 2 Lasers, 300W
Layer Thickness	10μm-50μm
Scanning Track Width	40μm-80μm
Scanning Speed	≤ 10m/s
Oxygen Content	≤ 100ppm
Protective Atmosphere	Integral sealed, automatic monitoring of oxygen content, recycling cleaning and collection coefficient ≥ 99%
Relative Density	99.9%+
Typical Accuracy	0.05-0.1mm
Metal Powder	Titanium alloy, cobalt-chromium alloy, stainless steel, mold steel, etc.
Process Parameter Configuration	Tailored parameter set for the specific application, user-modifiable
Weight	Est. 950kg
External Dimensions	1150mm × 1150mm × 1830mm
Power Supply	300W: AC220V, 50/60Hz, peak power ≤4.3-4.5kW, average power ≤2.8-3kW 500W: AC380V, 50/60Hz, peak power ≤5.5kW, average power ≤3.5kW

## About Us



#### Global Leader

Recognized globally for developing and manufacturing metal additive manufacturing equipment, with over 200 patents and prestigious certifications.



#### Innovation and Quality

Continuous improvement and technological advancements to keep customers ahead.



#### Tailored to Industries

Customized metal additive manufacturing solutions for dental, orthopedic, automotive, aerospace and more.



#### **Cutting-edge Solutions**

Acclaimed metal 3D printing machines installed in 30+ countries, offering advanced capabilities.

Email: marketing@prototech.co.kr

Website: www.prototech.co.kr

Tel: 02-6959-4113



Korea Offices:

19, Gasn digital 1-ro, Geumcheon-gu, Seoul, Korea #302

© 2024 All rights reserved by HBD